2015 Annual Capacity Development Report to the US Environmental Protection Agency

State Fiscal Year 2015
(July 1, 2014 – June 30, 2015)

State of Nevada
Division of Environmental Protection

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Background

The Nevada Division of Environmental Protection (NDEP) implements the state's capacity development program (http://ndep.nv.gov/bffwp/dwsrf1_cap_dev.htm). The following annual capacity development implementation report describes the capacity development efforts conducted by the Office of Financial Assistance (OFA), Bureau of Safe Drinking Water (BSDW), Bureau of Water Pollution Control (BWPC), and technical assistance provider – Nevada Rural Water Association (NvRWA), from July 1, 2014 through June 30, 2015, in the administration of the Capacity Development Program.

The capacity development program is funded primarily with set-aside monies from the Drinking Water State Revolving Fund (DWSRF). In developing and implementing this program, the NDEP accomplished tasks in the following areas:

- New Systems Program Annual Reporting Criteria
- Existing System Strategy

A. New Systems Program Annual Reporting Criteria

1. *Has the State's legal authority (statutes/regulations) to implement the New Systems Program changed within the previous reporting year?*

   Nevada's legal authority to implement the New Systems Program did not change during state fiscal year (SFY) 2015.

2. *Have there been any modifications to the State's control points?*

   There have been no modifications to Nevada's control points during SFY 2015.

3. *List new systems (PWSID & Name) in the State within the past three years and their ETT scores.*

   Figure 1 shows the new systems in the State within the past three years and their Enforcement Targeting Tool (ETT) scores.

ACTIVITY DATE	COUNTY	TYPE	PWS ID	PWS NAME	POPULATION	ETT SCORE
6/23/2015	PERSHING	NC	NV0001124	GOLD DIGGERS SALOON & GRUBB HOUSE	25	
5/7/2015	ELKO	NC	NV0002080	WILDHORSE RESORT	25	
2/13/2015	CLARK	NTNC	NV0001140	SLOAN ARMY RESERVE CENTER	348	
2/6/2015	CLARK	NTNC	NV0001139	TIMET CORPORATION	574	
11/21/2014	HUMBOLDT	NTNC	NV0002198	KINGS RIVER ELEMENTARY SCHOOL	27	
10/22/2014	CLARK	C	NV0000415	ELKHORN WELL ASSOCIATION	32	
9/9/2014	ELKO	NC	NV0004005	LDS LEE RECREATION CAMP	100	
9/1/2014	CLARK	NTNC	NV0001137	COSMOPOLITAN HOTEL	5534	
7/15/2014	CLARK	NTNC	NV0001141	WYNN RESORTS	9416	
7/1/2014	LYON	NC	NV0000881	GOLD CANYON CAFE	25	1
12/30/2013	NYE	NC	NV0003035	THE HUBB	25	
12/19/2013	NYE	NC	NV0000386	TOWER PIZZA	25	
11/7/2013	WASHOE	NC	NV0004065	WASHOE VALLEY MEETINGHOUSE FACILITY	108	51
10/17/2013	WASHOE	NTNC	NV0001132	RENO TECHNOLOGY PARK WATER	30	
9/17/2013	EUREKA	C	NV0000414	THE LODGE AT PINE VALLEY	320	
8/13/2013	WHITE PINE	NC	NV0001135	WHIPPLES COUNTRY STORE	25	
8/8/2013	LYON	NTNC	NV0001133	PUMPKIN HOLLOW SHAFT SITE	45	
8/5/2013	CLARK	NC	NV0001101	NDOT SEARCHLIGHT WELCOME CENTER	50	
8/5/2013	WHITE PINE	NC	NV0003046	WARD MOUNTAIN CAMPGROUND USFS	600	
7/23/2013	STOREY	NTNC	NV0000413	COMSTOCK MINING	45	3
6/26/2013	CLARK	NTNC	NV0001127	POLO TOWERS	2300	
6/12/2013	DOUGLAS	NC	NV0002041	BEST WESTERN TOPAZ LAKE INN	300	2
6/7/2013	MINERAL	NC	NV0001128	WILDKAT RANCH	25	
5/7/2013	DOUGLAS	NTNC	NV0002227	THE CLUB AT CLEAR CREEK TAHOE	25	
4/18/2013	NYE	NC	NV0002555	CHAMPIONS	25	
4/15/2013	ELKO	NC	NV0001092	RYNDON COUNTRY STORE LLC	25	
2/19/2013	LYON	NC	NV0004040	STAGECOACH MARKET	25	
2/6/2013	NYE	NTNC	NV0001122	ROUND MOUNTAIN GOLD HILL WATER	250	2
1/14/2013	PERSHING	NC	NV0001125	HUMBOLDT RIVER RANCH ASSOCIATION	150	
1/10/2013	ELKO	NTNC	NV0001126	WEST END WATER COOP ASSOC	25	2
12/6/2012	LYON	NC	NV0000341	CARMENS MEXICAN RESTAURANT	25	
11/8/2012	NYE	C	NV0002571	RANCHO VISTA 4	25	
10/3/2012	CLARK	NTNC	NV0001121	MGM GRAND HOTEL AND CASINO	7500	
9/10/2012	NYE	NC	NV0000829	SULLIVANS PUB	25	
8/16/2012	CLARK	NTNC	NV0001120	MIRAGE RESORT AND CASINO	4400	
8/8/2012	CLARK	NTNC	NV0001119	MANDALAY BAY RESORT AND CASINO	5549	
7/26/2012	CLARK	NTNC	NV0001118	MONTE CARLO RESORT AND CASINO	1980	
7/25/2012	CLARK	NTNC	NV0001117	BELLAGIO RESORT AND CASINO	8171	
7/3/2012	CLARK	NTNC	NV0001107	KAPEX WATER SYSTEM CITY OF NLV	25	
6/22/2012	CLARK	NTNC	NV0001114	EXCALIBUR RESORT AND CASINO	2607	
6/22/2012	CLARK	NTNC	NV0001113	CIRCUS CIRCUS CASINO	2668	
6/22/2012	CLARK	C	NV0001116	SIGNATURE TOWERS	516	
5/9/2012	CLARK	NTNC	NV0001111	LUXOR RESORT AND CASINO	3196	
5/9/2012	CLARK	NTNC	NV0001112	NEW YORK NEW YORK HOTEL AND CASINO	2000	
4/2/2012	CLARK	C	NV0001109	CITY CENTER RESIDENCES	808	
2/24/2012	WHITE PINE	NTNC	NV0000982	BALD MOUNTAIN MINE	110	

Figure 1. New water systems within Nevada in the last 3 years.

B. Existing System Strategy

1. *In referencing the State's approved existing systems strategy, which programs, tools, and/or activities were used, and how did each assist existing PWS's in acquiring and maintaining TMF capacity? Discuss the target audience these activities have been directed towards.*

Helping water systems develop and maintain capacity is the backbone of the Capacity Development Strategy. Many water systems throughout Nevada have increased their capacity through the technical assistance program. In SFY 2015, NDEP contracted with the NvRWA to provide technical assistance to small water systems. The technical assistance program provides "targeted" assistance by focusing on specific issues or problem areas. Specific assistance to small water systems is shown in Attachment 1. Some of the more recent program highlights are described below.

Compliance with the Safe Drinking Water Act

Our state capacity development coordinators and technical assistance providers work closely with state enforcement staff and review the ETT list provided each quarter to identify systems that lack TMF capacity and to determine steps to help the system return to compliance in a timely manner. With funding provided through the DWSRF small systems technical assistance contract, NvRWA focuses on systems with less than 11 threshold "points" to help keep them off the ETT list altogether. Through this process, Nevada has made significant progress in assisting water systems return to compliance.

There has been an emphasis on requesting technical assistance for public water systems with 6 - 10 points, and the number of systems with points in this range has decreased from 26 to 22 during SFY 2015. As shown in Figure 2 below, non-compliance continues to hit new lows throughout the year. The annual spike in systems that typically occurs in July was the lowest since inception of the ETT. For SFY 2015, the percent of community water systems in compliance with maximum contaminant levels (MCLs) was 91 percent, and the percent of population served by community water systems in compliance with MCLs was 99 percent.

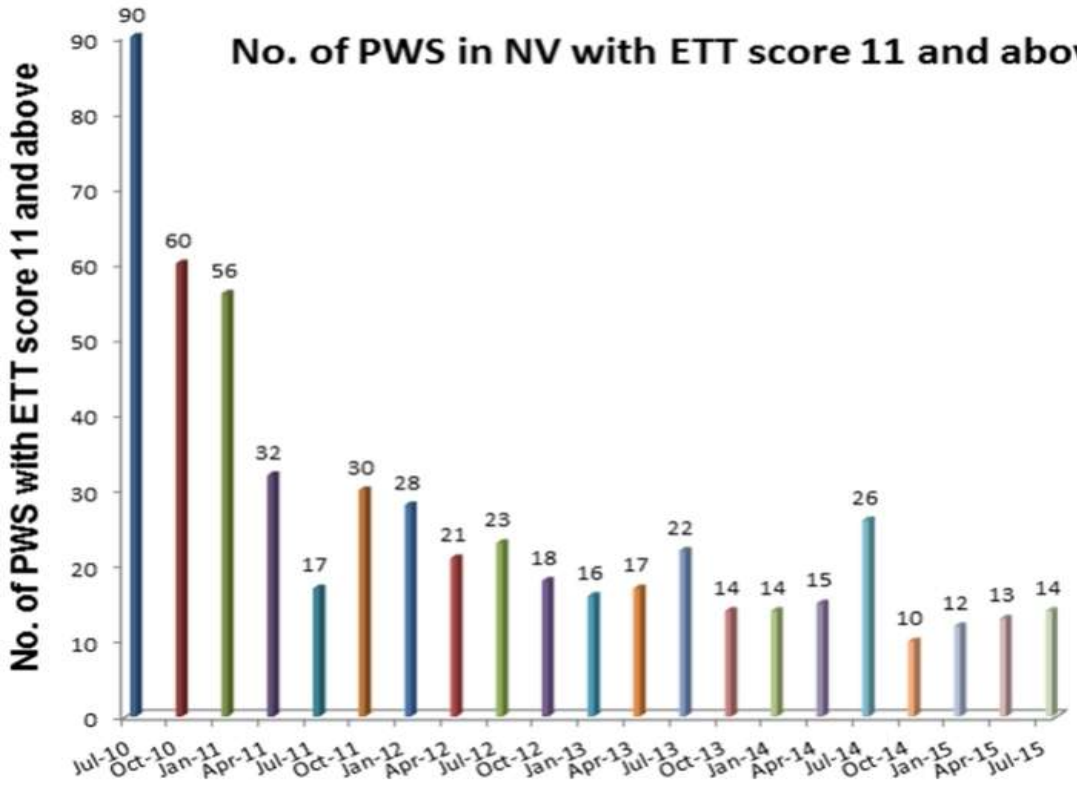

Figure 2. ETT Tracking Over Time

Capacity Assessments

Capacity assessments are useful tools for water systems to measure their strengths and identify weaknesses and are also useful tools for state staff and technical assistance providers to identify the most appropriate assistance for water systems. In addition, the DWSRF uses the capacity assessments as a tool in determining eligibility for loans. Six (6) assessments were conducted at the request of the DWSRF for potential new loan applicants.

Capacity assessments continue to show the following common deficiencies among small water systems:

- Limited maps and asset information for the water systems
- Lacking plans for Operation & Maintenance, Emergency Response, Cross Connection Control and Capital Improvement
- Issues with routine sampling & sampling plans
- Routine maintenance is lacking
- Under-staffed and under-funded operations

Nevada is making a special effort to assist systems with these common deficiencies while also continuing to provide assistance to systems for compliance issues, distribution and treatment training, and other TMF capacity development. More information along with our current capacity assessment form is available on our website at:
http://ndep.nv.gov/bffwp/dwsrf1_cap_dev.htm.

Cross-Connection Control, Emergency Restoration, & Operation/Maintenance

Public Drinking Water systems in Nevada are required to have site-specific plans approved by BSDW for cross-connection control, operations and maintenance, and restoration of services in an emergency. Water systems are also required to have a water conservation plan that must be updated every five years and be approved by the Nevada State Engineer's Office. In the past year NvRWA assisted twenty (20) small water systems with these plans. This was accomplished by working closely with system personnel so that they could gain working knowledge and ownership of their site-specific plans. Water loss auditing is an important component of conservation, and three (3) systems received hands-on assistance to identify leaks and training in the leak detection and water loss calculation.

Developing operation and maintenance plans and cross-connection control plans provides staff with an opportunity to systematically examine their customers' and their own facilities. Nationwide, cross-connections represent the single largest source of contamination of drinking water. The challenge is in moving from no program to a costly device installation and testing scenario, which by-and-large impacts businesses. Future efforts will continue to be multi-phased and include: updating plans, additional training for system staff and local governing boards, conducting public education, and finding community-appropriate ways to carry out implementation. DWSRF staff is looking at innovative loan solutions to ease the financial burden of implementation of cross-connection control devices.

Assistance with emergency response and restoration remains an important focus for the capacity development program. Emergency restoration plans provide a framework for dealing with emergencies. The planning exercise is valuable, in itself, as participants gain greater understanding of system vulnerabilities and develop action plans for dealing with unusual conditions. A greater understanding of system responsibilities under the Public Notification Rule is one outcome of this planning process. Testing the plans by conducting tabletop exercises is another way technical assistance providers increase water systems' preparedness.

Water System Mapping

Nevada recognizes that as operators retire, a wealth of system knowledge goes with them and may be, largely, undocumented. In addition, capacity assessments revealed that many water systems had limited mapping of their systems and assets. Maps are critical for basic operations and maintenance, cross-connection control, water conservation, and emergency response. Systems with the highest TMF capacity have digital utility maps, on-hand, of the entire service area that include the location of each water source, treatment facility, pumping station, reservoir, pressure zone, control and isolation valve, hydrant, and meter. Some of these also include future growth areas.

In order to take advantage of available information technologies and to capture and transfer institutional knowledge and outdated paper maps to electronic media, technical assistance is being provided to small water systems to create electronic system maps and asset databases. In the past year, NvRWA worked with thirteen (13) small water systems in an effort to assist

them in identifying their assets and getting them mapped, at no charge, as a part of the DWSRF technical assistance outreach.

Compliance Assistance & Other General Technical Assistance

During SFY 2015, NvRWA initiated an update of the small system operation and maintenance, emergency response and recovery, and cross-connection control template. The template was originally approved by the BSDW in 2007, and there was a need for updating. The revised document has been the subject of meetings between the NDEP and NvRWA and is expected to be in use during SFY 2016. All public water systems need these documents, and the template serves to expedite their development as well as provide the operators and managers with an in-depth study of their physical plant and operations. Using an approved template also expedites review and approval by the BSDW.

NvRWA assisted twelve (12) system operators to understand their sanitary survey results, write corrective action plans, and work to address deficiencies. Triggering this assistance were situations ranging from addressing an immediate coliform positive result, disinfection followed by sampling for coliform, lead and copper reporting, disinfection byproducts compliance, or development of standard operating procedures.

Assistance was provided to twenty-five (25) systems to deal with mechanical-electrical problems, water quality or monitoring issues, and general operations. Working closely with the staff at each system, NvRWA provided hands-on assistance or guidance with troubleshooting, made recommendations for repairs, and helped to identify parts, materials, or actions needed. By working alongside experienced technical assistance providers, system operators gained a deeper knowledge of troubleshooting techniques and of the equipment installed in their facilities, including where to obtain supplies. Where sanitary deficiencies or water quality/monitoring issues needed to be addressed, discussion during examination of the deficiency instilled greater understanding of the concept of sanitation for public health protection.

The success or failure of a water system often depends on the knowledge and experience of its board. The board, working through the operations staff, is ultimately responsible for ensuring that they distribute water that is safe to drink. In addition to the board, administrative staff directly interacts with and supports operations. Seven (7) systems received training and assistance at the board and administrative levels to enhance understanding of their roles in keeping small drinking water systems in compliance and financially viable.

BSDW and NvRWA staff actively worked with fifteen (15) Community and Non-Community water systems to develop or update Site Sampling Plans for compliance with the Revised Total Coliform Rule and the related Groundwater Rule and public notification requirements. Developing these plans requires educating the water systems on the nuances of the Revised Total Coliform Rule, identifying appropriate sample locations, establishing appropriate sampling schedules, and reviewing the plans once submitted. Working with the system personnel, NvRWA staff reviewed each system layout and walked them through identification of appropriate routine, routine follow-up, and groundwater rule compliance sample sites, then

assisted them with development of their own plan for submittal to the BSDW for review and approval. Expanded capacities among these system personnel include: competency about how the rule applies to their system; actions to take in case of positive coliform or E. coli results; timely interaction with the primacy agency; knowledge of the concepts of representative sampling; and the ability to modify their plans as their system grows in the future. With the development of these site sampling plans, the small systems have an additional tool at their disposal in the event of the presence of Total Coliform or E. coli bacteria in the water system or a water related emergency, including effective public notification language and methods.

NvRWA assisted systems to plan valve exercising programs and developed a template for a valve exercising plan. Regular valve exercising is the only way to ensure that valves will be functional when they are needed, and this is often under urgent circumstances. This aspect of maintenance management is needed at many small systems and it is anticipated that the availability of a template having a systematic approach to valve exercising will open operators and managers to implementing the practice.

Operator Training and Certification

Nevada currently has 582 public water systems. These systems include: 213 community water systems; 130 non-transient, non-community water systems; and 239 transient, non-community water systems. Nevada requires all community and non-transient, non-community public water systems to have certified operators; a total of 343 systems. Transient non-community water systems that use surface water or groundwater under the direct influence of surface water must also be operated by a certified operator. Compliance with the operator certification requirements for all water systems statewide is at 99.7 percent.

The NvRWA is instrumental in providing training to small, rural water systems. Considering all system types, 92 percent of water systems in Nevada serve between 25 and 3,300 people. With funding from the DWSRF technical assistance contract, NvRWA provides operator training using remote video-conferencing. This method of offering training has been very successful in part because it meets the needs of a very specific audience, the very small system operators (those that serve between 25-100 customers). The sessions are broadcast to sites all over the state and offer the advantage of being interactive training that is relevant and cost-effective; requiring minimal travel for the participants. In SFY 2015, NvRWA conducted 11 interactive videoconference trainings. These sessions provided a total of 33 hours of training to 493 participants representing 293 water systems. Sessions were broadcast monthly and included a wide array of topics (e.g., *Water Operator Principles - Distribution & Treatment, Practical Steps in Conducting Your Water Audit, Financial Accounting for Small Utilities, Basic Chemistry for Water Operators, and GIS for Rural Water Utilities*). A listing of the topics for SFY 2015 is included in Attachment 1.

In addition to the video-conferencing, NvRWA hosts an annual spring conference in Reno to provide training and general information to water system operators, managers, and board members. The class sessions and vendor displays at this conference give operators information on up-to-date equipment and methods in the industry and focused training in distribution and treatment systems. The conference also helps to prepare operators for certification testing.

The DWSRF technical assistance contract with NvRWA also provides scholarship money to operators to assure that they are able to attend the spring conference and gain the benefits of the certification training and testing. In order to help meet local small system needs, training for Backflow Assembly Tester certification has also been funded using this method.

NDEP has also funded the NvRWA to provide both group and individual operator training at the operator's water system. In seventy-six on-site sessions, NvRWA provided training to 321 operators, 46 managers, 16 administrative staff, and 40 board members representing a total of 218 water systems. Training topics are selected depending on system needs, and often topics are requested by system managers. These sessions are open to any interested individual, and staff from nearby systems often participate. Specific assistance to small water systems in SFY 2015 is shown in Attachment 1. This and other training has been instrumental in helping individuals become certified, including many who needed treatment operator certification as a result of arsenic treatment being implemented at their systems.

In SFY 2015, BSDW worked with the new EPA Small Systems technical assistance providers (Nevada Rural Water Association [NvRWA], Environmental Finance Center [EFC], the American Water Works Association [AWWA] California-Nevada Section, and the Rural Community Assistance Corporation [RCAC]) to bring additional, focused training into Nevada.

BSDW is working with the Department of Veterans Affairs (VA) to provide veterans and other eligible persons the valuable opportunity for reimbursement of certification exams. If approved, these operators will be able to receive testing fee reimbursement from the VA. Water Operator careers are a perfect fit for applying the skills learned from certain Military Operating Specialties (M.O.S.) to civilian jobs. Employing veterans in the role of water system treatment operators and water system distribution operators would provide the opportunity for veterans to continue their careers by being responsible for the operation and maintenance of the water systems that provide safe drinking water to citizens of the State of Nevada.

The Nevada Water and Wastewater Operators Forum (Forum) is hosted by the BSDW and supports the protection of human health and the environment through collaboration among water and wastewater system operators and the NDEP. The Forum provides a regular mechanism for communication among the regulated community of certified operators, the American Water Works Association, NDEP, the Nevada Water Environment Association, and others. BSDW hosts a webpage for the Forum at http://ndep.nv.gov/dwo/index.html and supports the administrative needs of the entity.

Integrated Source Water Protection/Wellhead Protection

Groundwater is the source of drinking water for approximately 90 percent of Nevada's public water systems. Nevada created the Wellhead Protection Program in 1994 to assist public water systems and local communities in protecting drinking water supplies from contamination. Since 2009, Nevada has updated and is implementing a multi-faceted Integrated Source Water Protection Program (ISWPP) to help communities coordinate countywide efforts to protect drinking water supply sources. It is Nevada's belief that effective source water protection must be developed and administered by the community in conjunction with local water suppliers. A

local plan should be a long-term commitment on the part of the community to protect its drinking water sources from becoming contaminated or polluted by various land use activities.

The BWPC administers the ISWPP, which provides assistance to communities in the development and implementation of Community Source Water Protection Plans (CSWPPs). Local CSWPPs are developed through a county-wide planning and coordination approach which provides a framework for all public water systems within a specific county to work together to examine shared water sources, evaluate community development impacts to those sources, and discuss how to collectively manage potential risks from a broader perspective.

In addition, the BSDW Vulnerability Assessment and waiver program shares information collected under those program efforts with the ISWPP to document Potential Contaminant Sources (PCS) for public water systems. The Vulnerability Assessment reports document PCS and rank them for potential to adversely impact a water supply source. Initial project implementation efforts were funded by the American Recovery and Reinvestment Act set-asides and continue with a combination of state and federal resources, including the Wellhead Protection DWSRF set-aside.

The ISWPP's multi-jurisdictional approach provides opportunities for public water systems ranging from very small taverns and mobile home parks to larger districts and municipalities in order to pool resources and promote community-wide awareness and implementation of the plan. This ultimately increases opportunities for small public water systems with limited resources and/or capacity to be included under a more comprehensive CSWPP and implementation effort.

The current ISWPP planning schedule and funding allocations allow every public water system in the State of Nevada an opportunity to participate in the planning process over the 12 to 15-year cycle. In addition, the program planning schedule goal is to provide assistance for up to three counties at a time; approximately two years of technical assistance is dedicated for each county to include team building, plan development and implementation, and promoting public acceptance of the plan.

Currently, 237 of the 582 public water systems in Nevada are covered under a source water or wellhead protection plan. Of those, 211 systems are covered under plans that significantly implemented one or more management strategies. Table 1 below lists countywide plan development and implementation projects since the program was updated in 2009.

Plan Approved	Participating Counties	Implementation Activities
2012	Douglas	Public education and outreach, GIS mapping, well abandonment, integration of Source Water Protection Plan into local master planning documents and development/planning tool development
2012	White Pine	Integration of Source Water Protection Plan into local master planning documents, public education and outreach
2012	Nye	Public education and outreach, GIS mapping, technical training, facilitate local agency coordination to facilitate source water protection activities
2014	Lyon	Local source water protection code development & updates, well abandonment
2014	Carson City	Public education and outreach, trail improvement project: Kings Canyon Trail and Waterfall, GIS mapping, multi-agency coordination to facilitate source water protection activities
In Progress	Churchill	TBD
In Progress	Humboldt	TBD

Table 1. Countywide plan development and implementation projects since 2009

For more information on Nevada's ISWPP visit our website at:
http://ndep.nv.gov/bwpc/sourcewater.htm

Sustainable Infrastructure

Nevada's capacity development efforts support the EPA's sustainable infrastructure priorities:

- Better Management
- Full Cost Pricing
- Water & Energy Efficiency
- The Watershed Approach

Nevada has recognized that good management is critical to a well-functioning utility. Nevada offers technical assistance in the form of Board training to assist in better management. In terms of full cost pricing, Nevada's technical assistance providers have completed a number of rate studies for water systems and presented the findings to the governing boards and the public. Being the driest state in the U.S., Nevada has long recognized the value of water. The Nevada Division of Water Resources requires that every water system submit a Water

Conservation Plan that includes measures to evaluate the effectiveness of the plan. Technical assistance providers have helped a number of communities prepare and update these plans. In addition to user-based conservation measures, systems are being educated to audit and chart the amounts of water produced and sold on a monthly basis. Boards are being informed to ask for this information each month. Once usage patterns are established, changes in use will prompt managers to implement leak detection studies. NvRWA trains water system staff on electronic and acoustic leak detection equipment specifically to enhance their technical capacity by being up-to-date on detection technologies, while also locating any leaks real-time. Control of leakage in water systems not only saves water but pumping costs and energy. Although the concept of "Watershed Approach" is more focused on management of pollution sources, Nevada's Integrated Source Water Protection Program also fits into this concept.

Funding

The Drinking Water State Revolving Fund (DWSRF) provides low interest loans to both publicly and privately owned water utilities. As part of the DWSRF, Nevada has created a "disadvantaged community" program to address low income areas that have infrastructure deficiencies that pose a health threat. The Nevada Administrative Code defines a disadvantaged community as an area served by a public water system in which the average income per household is less than 80 percent of the median household income of the state. Starting in 2009, the federal appropriations for the DWSRF required that the state use a percentage of its grant to provide additional subsidy to eligible recipients in the form of forgiveness of principal, negative interest loans, or grants or any combination of these. Water systems that qualify for the disadvantaged program may be eligible for this additional subsidy. The additional subsidy requirements allowed resolution of many of the acute and chronic health risk needs. With the most serious health risks addressed, NDEP expanded subsidy eligibility criteria to include small system consolidation with larger systems. The subsidy program funded eight (8) projects totaling approximately $2.3 million dollars in SFY 2015. The terms and amount of the additional subsidy are determined on a case by case basis based on the individual community's financial situation.

In SFY 2015, the Nevada DWSRF made significant efforts to reach out to communities with high interest rate debt and offer refinancing at today's lower interest rates. Projects interested in refinancing had to show that all proceeds were spent on the projects and all relevant federal crosscutting requirements were met. One (1) community was approved for $13.8M in loan refinancing during SFY 2015. The savings realized through the refinancing helped to keep water rate increases to a minimum and allowed the system to start planning future debt for projects to sustain the system for the long term. Nevada's Clean Water SRF had even more success in refinancing.

Nevada, as a whole, recognizes that the needs associated with infrastructure deficiencies are increasing while many federal and state funding resources are dwindling. Collaboration between the major funding agencies in the state was initiated in 2006. NDEP hosts a webpage for the joint funders group at http://ndep.nv.gov/bffwp/nwwpa.htm. This site offers a "pre-application" common to all of the funders that makes coordination and communication between the funding agencies and applicants simple and allows the funding agencies to suggest

funding solutions that are most appropriate for the communities while leveraging all of the funding available in the state. Along with participating in the annual funders' roundtable session, the Nevada DWSRF also co-sponsored a booth with the USDA at the March 2014 NvRWA Conference. These activities gave water systems the opportunity for more one-on-one time to discuss their system needs and potential funding packages. The SFY 2015 DWSRF/CWSRF program flyer is included as Attachment 2.

Challenges

Impact of the drinking water standard for arsenic on Nevada

In medical studies, arsenic ingestion has been linked to both cancerous and non-cancerous health effects. Arsenic was one of the first regulated drinking water contaminants. On December 24, 1975, under the authority of the Safe Drinking Water Act (SDWA) of 1974, the EPA issued a National Interim Primary Drinking Water Regulation for arsenic of 0.05 mg/L (50 ppb). On January 23, 2001, the arsenic MCL was lowered to 0.010 mg/L (10 ppb) and the standard became enforceable on January 23, 2006.

113 public water systems in Nevada, approximately 35 percent, were impacted by the new standard when compliance determinations were made in 2005. A few systems have since been added to the list based on more recent arsenic data or due to construction of new wells. The Safe Drinking Water Act and Nevada Administrative Code provided eligible systems exemptions to the standard when it changed; allowing them more time to comply. For some systems with small populations and low arsenic concentrations, final compliance deadlines were pushed back to January 23, 2015. All exemption requests were reviewed and approved by the State Environmental Commission.

As of August 2015, 100 affected water systems have met their compliance requirements through treatment or non-treatment solutions. Nine (9) systems in violation of the drinking water standard are working to achieve compliance under a BSDW enforcement approach. Approaches generally include an Administrative Order (unilateral in nature) or a mutually-negotiated Administrative Order on Consent. Both approaches outline a water system's compliance timeframes and place them on a path to compliance. The systems on the Arsenic Rule Compliance Status List, included as Attachment 3, either have an executed Order or are in the queue for establishing one.

The cost impact of the new arsenic standard has been significant. Many systems were not prepared financially or otherwise to meet their compliance deadlines. Funding for arsenic mitigation projects from the State of Nevada is approximately $78.5M – with grant funding assistance to water systems from the State Capital Improvements Grant Program totaling approximately $20M and funding from the Drinking Water State Revolving Loan Fund (both regular loans and principal forgiveness loans) totaling approximately $58.5M to date. Systems also received funding for arsenic mitigation in the form of loans and grants from the US Department of Agriculture – Rural Development, Community Development Block Grants and the US Army Corps of Engineers. Systems faced many hurdles pertaining to regulatory requirements, exemption options and processes, compliance options, treatment options, cost impacts, funding options and strategic planning. Ongoing costs for operations and

maintenance vary widely depending on system size, treatment type, and chemical addition needed, and water usage.

In addition, the requirements for operator certification increased. Previously, systems that only consisted of water storage and distribution were not required to have a treatment-certified operator. Systems that now employ treatment must have a treatment-certified operator, and the more complex the treatment, the higher the certification level required. This, too, has increased the long-term costs of operation.

Drought

The summer of 2015 is revealing the effects of ongoing drought. A few communities are experiencing a drop in groundwater levels that are affecting operation of wells or flow from springs. Improving system capacity includes discussions related to predicting potential drought impacts and planning responses before the situation becomes critical.

In April 2015, Governor Brian Sandoval signed an Executive Order establishing the Nevada Drought Forum. "The Nevada Drought Forum will bring together some of the best minds in the water science, conservation, government and industry sectors to ensure that Nevada's path forward is clear. The Forum will provide an opportunity for all Nevadans – urban and rural, north and south – to come together to help address this most critical challenge."

The drought forum consists of members of local water municipalities, state government, higher education, and climate experts and is tasked with examining water policies currently in effect around the state and recommending any changes. Information and updates on the drought and activities related to the Forum are available at http://drought.nv.gov/.

Managerial Capacity

Despite the evolution and maturing of Nevada's Capacity Development Program, the greatest areas of weakness in rural Nevada continue to be in managerial capacity. Managerial capacity is directly affected by the individual water system operators, managers and board members. Nevada has some very small water systems (31% of the community water systems in Nevada serve a population less than 100 people) and often there is not even one full time employee. Finding and retaining qualified and experienced water system operators, managers and board members is limited in rural areas and may be attributed to the following causes:

- Aging Workforce. There have been several published reports regarding the aging workforce in the water industry and the lack of qualified professionals to succeed those that are retiring. Attracting qualified individuals to very small, rural communities adds to the challenge.
- Salaries. Due to the competition in the marketplace, rural water systems typically do not offer enough money to attract experienced operators and managers. They will usually settle for someone less qualified that will work for a lower wage. This in turn affects the managerial capacity of the water system.

- Board Members without Utility Backgrounds. In rural communities, water systems are fortunate to find enough individuals to serve on a board. Many board members in rural areas lack a fundamental understanding of water system operations, finance, and management. This can be overcome where an experienced water system manager is in place, but when the manager is lacking experience, this situation can be problematic. Unfortunately, some boards tend to micro-manage water systems, and when they lack the appropriate background or experience this can lead to a serious decline in the capacity of a water system.

Water systems that are led by a capable, experienced manager, who are supported by a competent and progressive governing board, tend to have high capacity in all areas. On the other hand, water systems that are led by managers with little experience or technical ability who report to an unsupportive or uninformed board tend to struggle with capacity in many areas.

The Future

As the capacity development program grows and evolves, lessons learned have resulted in a program that continues to improve and better serve the needs of Nevada's water systems. From the beginning of the program, Nevada has maintained that the Capacity Development Strategy is a 'living' document and will be revised as needed. Although the Strategy document, itself, has not been revised, the method of implementation of the Strategy has evolved.

While all systems are unique, the vast majority of water systems in Nevada still need particular assistance with managerial and financial principles and planning. Full cost pricing is required in order for a water system to fully function as it should. Operation and maintenance activities, such as valve exercising and line flushing, are also important to extending the life of the infrastructure and maintaining high water quality.

Proper management of infrastructure assets is critical to sustainability. Although the concept of managing assets is relatively simple, many water utilities do not understand how to design and implement an effective asset management program. Managing a utility effectively requires a proactive approach to managing infrastructure assets. The primary objective of asset management is to manage system assets in a way that meets long-term service requirements reliably and cost-effectively. Future technical assistance efforts will include asset management training and assistance to:

- develop a record of their assets & create a tailored asset management plan
- perform all required maintenance tasks
- understand their financial situation and assure proper rates are in place to keep the water system sustainable and provide the level of service expected by customers

There are new requirements and issues that will challenge many Nevada water systems in the coming years. Among them are the Stage 2 Disinfectants and Disinfection Byproducts Rule, the Groundwater Rule, the Revised Total Coliform Rule, impacts caused by growing or declining populations, the need to conserve the State's precious water resources, and finding qualified

professionals in the water industry. The focus of technical assistance over the near term will be on the critical issues that are identified above.

2. *Based on the existing system strategy, how has the State continued to identify systems in need of capacity development assistance?*

   Compliance problems, sanitary survey deficiencies, requests for technical assistance, and capacity surveys are all used to identify systems in need of capacity development assistance.

3. *During the reporting period, if statewide PWS capacity concerns or capacity development needs (TMF) have been identified, what was the State's approach in offering and/or providing assistance?*

   Technical assistance has been offered both by state staff and through third party contractors (see technical assistance section above).

4. *If the State performed a review of implementation of the existing systems strategy during the previous year, discuss the review and how findings have been or may be addressed.*

   Nevada evaluates the effectiveness of the existing systems strategy on an ongoing basis and adjusts the program when needed improvements are identified.

5. *Did the State make any modifications to the existing system strategy?*

   No changes to Nevada's Capacity Strategy were made during SFY 2015.

ATTACHMENT 1 –Technical Assistance to Small Systems
Provided by Nevada Rural Water Association

Technical Assistance provided by Nevada Rural Water Association (Components A & B)

The following list identifies the initiation of technical assistance. Completion of assistance may take longer than one quarter.

	Water System Name	Description of Assistance
	Jul-Sep 2014	
1	Canyon GID (NV0005056)	Assisted with sampling procedures & requirements; provided direction with pump contractor at Well 1
2	Comstock Mining (NV0000413)	Assisted with plan of action to address sanitary survey significant deficiencies
3	Hawthorne Utilities (NV0000073)	Reviewed water quality sampling requirements with utility manager
4	Imlay Water System (NV0000226)	Reviewed water quality sampling & operator certification requirements with new operator
5	Riverside Resort (NV0001042)	Reviewed anomalous arsenic results & subsequent follow-up results
6	Rye Patch Travel Center (NV0002222)	Assisted with system disinfection & testing after positive TC & Boil Water Notice
7	Schurz Elementary School (NV0000897)	Assisted with actions to address sanitary survey significant deficiencies
8	Hillcrest Manor (NV0000145)	Reviewed O&M manual for necessary updates
9	Lovelock Meadows Water District (NV0000161)	Reviewed existing CCCP & implementation progress
10	Riverbelle MHP (NV0000244)	Assisted with updates to Water Conservation Plan
11	Dutchman Acres (NV0000809)	Reviewed needed modifications to plans per PUC
12	Humboldt River Ranch Assoc (NV0001125)	Conducted TMF capacity survey
	Lovelock Meadows Water District (NV0000161)	Reviewed meter testing with operators after customer complaints
13	Mt Rose Bowl HOA (NV0000732)	Conducted TMF capacity survey
14	Orovada GID (NV0003032)	Review ETT & water system in general with Board member
15	Round Mountain (NV0004047)	Review of Cla-Val operations & free Cl in system
16	Shoshone Estates (NV0005028)	Assisted with system controls - repair & settings
17	Silver Springs Mutual Water Co (NV0000223)	Reviewing progress on Deodar Well rehabilitation with operator
18	Steamboat Springs (NV0000282)	Assisted with system mapping, wellhead protection plan, & hydraulic modeling
19	Tonopah Public Utilities (NV0000237)	Demonstrated the use of ArcGIS online
20	Walker Lake GID (NV0000268)	Assisted with identifying water leak; reviewed status of production wells with new manager
21	Weed Heights (NV0000242)	Assisted operator in finding correct pump packing & seals
22	West Wendover (NV0000246)	Assisted with conversion of system CAD maps to GIS base
23	Winnemucca Farms (NV0002098)	Assisted with chlorine pump issues
24	Gerlach GID (NV 0000071)	Assisted GID with Davis-Bacon certified payroll
	Winnemucca Farms (NV0002098)	Training: D1 Operator Certification (3 people, 1 system, 5 hours)
	Winnemucca Farms (NV0002098)	Training: D1 Operator Certification (2 people, 1 system, 6 hours)
	Canyon GID (NV0005056)	Assisted with troubleshooting water quality issue after well rehabilitation
	Imlay Water System (NV0000226)	Assisted with updates to the TCR SSP
25	R&M Mobile Home Park (NV0000054)	Assisting with basic O&M, ERP & CCCP & finding information to replace or reactivate the treatment (Fe & Mn?) system
	Rye Patch Travel Center (NV0002222)	Training: Taking TC+ bacteriological samples & completing chain-of-custody paperwork for lab 1 person, 1 system, 1 1/4 hours)
	Rye Patch Travel Center (NV0002222)	Assisted with O&M plan; reviewed issue with leak in fire line
26	Topaz Ranch Estates GID (NV0000239)	Conducted IDC for new operators
	Rye Patch Travel Center (NV0002222)	Assisted with O&M, ERP, & CCCP
27	Beatty Water & Sanitation Dist (NV0000009)	Reviewed failure of EW-4 pump
28	Lahontan Dam State Park (NV0002028)	Assisted with requirements for hauling water after spring source dried up
29	Silver Knolls HOA (NV0004021)	Reviewed arsenic treatment plans & provided input
	Steamboat Springs (NV0000282)	Conducted TMF capacity survey
	Steamboat Springs (NV0000282)	Reviewed issues with isolation valve project & need for valve exercising program
	Tonopah Public Utilities (NV0000237)	Assisted with asset layer creation (e.g., hydrants)
30	Town of Minden (NV0000168)	Assisted with Fe bacteria issue & information for the Town
	Walker Lake GID (NV0000268)	Provided direction in use of Alcrete as a patch to seal cracks in pedestals

Technical Assistance provided by Nevada Rural Water Association (Components A & B)

The following list identifies the initiation of technical assistance. Completion of assistance may take longer than one quarter.

	Water System Name	Description of Assistance
	Jul-Sep 2014	
31	Yerington (NV0000255)	Provided overview of ArcGIS online & assisted water system in developing shapefile layers to capture asset information
	Winnemucca Farms (NV0002098)	Training: D1 Operator Certification (3 people, 1 system, 5 hours)
	Winnemucca Farms (NV0002098)	Training: D1/D2 Operator Certification (3 people, 1 system, 5 hours)
	Yerington (NV0000255)	Reviewed EPA regulations on water treatment plant operations with system personnel
32	Hollywood Skate (NV0002586)	Assisted with disinfection of well & required sampling after TC+; review of proper sampling procedures with operator
	Imlay Water System (NV0000226)	Assisted with troubleshooting of hypochlorinator after drop in system free chlorine
33	Midas Water Coop (NV0003071)	Assisted with disinfection of well & required sampling after TC+; updated O&M manual with proper flushing & chlorinating; assisted with sanitary survey corrective action plan
	Schurz Elementary School (NV0000897)	Assisted with update of TCR SSP & selecting an appropriate sampling site for the Lead & Copper Rule
	Walker Lake GID (NV0000268)	Reviewed requirements for backflow & system valve operations with system operator;
	Winnemucca Farms (NV0002098)	Assisted with corrective actions after system turned on an unapproved well
34	Caliente Public Utilities (NV0000013)	Conducted TMF capacity survey
	Canyon GID (NV0005056)	Provided direction with operations of Well 1 & WTP 1 after pump repairs
	Yerington (NV0000255)	Reviewed treatment plant operation, treatment math & reporting of free chlorine residual with operator
35	Goldfield Town Water (NV0000072)	Assisted with setup of ArcGIS online & arranging/creating data file
36	Indian Springs (NV0000082)	Assisted with setup of ArcGIS online & arranging/creating data file
37	Jarbidge Water System (NV0002070)	Reviewed water system layout & assisted with GIS data preparation from CAD information
38	Montello Water System (NV0000169)	Assisted with GPSing of assets in the field & GIS data preparation from CAD information
39	Rosemount Water Company (NV0000767)	Participated in sanitary survey with Washoe Co, PUC & owner
	Steamboat Springs (NV0000282)	Provided valve exercising program materials
40	Tuscarora Water System (NV0000189)	Assisted with watershed delineation & mapping
41	Verdi Meadows Utility Company (NV0000196)	Participated in site visit to review service area, system conditions, water quality issues & customer complaints with PUC
	Virgin Valley Water District (NV0000167)	Conducted TMF capacity survey
	West Wendover (NV0000246)	Assisted in GPSing water system assets for electronic map layers
42	Fernley Public Works (NV0000062)	Training: D3 Operator Certification (2 people, 1 system, 8 hours)
	Fernley Public Works (NV0000062)	Training: D3 Operator Certification (3 people, 2 systems, 8 hours)
	Tonopah Public Utilities (NV0000237)	Training: Compiled a list of expected management reports for the Town Board (1 person, 1 system, 2 hours)
	Yerington (NV0000255)	Training: Conducted training at the Fernley WTP for a Yerington operator (1 person, 1 system, 8 hours)
	Winnemucca Farms (NV0002098)	Training: D1 Operator Certification (2 people, 1 system, 8 hours)
	Winnemucca Farms (NV0002098)	Training: D1 Operator Certification (4 people, 1 system, 8 hours)
	Winnemucca Farms (NV0002098)	Training: D1 Operator Certification (4 people, 2 systems, 8 hours)
43	Washoe County (NV0002525)	Training: T3/T4 Operator Certification (7 people, 2 systems, 8 hours)
	Washoe County (NV0002525)	Training: T3/T4 Operator Certification (15 people, 3 systems, 8 hours)
	Oct-Dec 2014	
44	Tolas Waterworks Coop (NV0000055)	Pre-sanitary survey preparation with operator
45	Wildes Manor (NV000058)	Assisted with review of blockage & bypass hoses in distribution system
	Silver Springs Mutual Water Co (NV0000223)	Provided direction with water quality/bacteriological sampling & well disinfection
46	Topaz Ranch Estates GID (NV0000239)	Provided review & direction with the water quality results for D/DBP
47	Wells Municipal Water Dept (NV0000245)	Assisted with disinfection of Well 6 after TC+ results
48	Buckboard General Store (NV0000389)	Reviewed system & sanitary survey with operator
49	Laferme Restaurant (NV0002053)	Assisted with SOPs & proper sampling procedures after TC+; reviewed sanitary survey & assisted with response letter

Technical Assistance provided by Nevada Rural Water Association (Components A & B)

The following list identifies the initiation of technical assistance. Completion of assistance may take longer than one quarter.

	Water System Name	Description of Assistance
	Oct-Dec 2014	
	Winnemucca Farms (NV0002098)	Assisted with disinfection of Well 2 & reviewed flushing/dechlorination procedures
50	Camp Galilee (NV0004033)	Assisted with possible contamination of a cistern by providing hands-on training in bacteriological sampling
51	HeyDay Inn (NV0004037)	Assisted with the preparation of and need for a ERP/O&M manual/CCCP required after recent sanitary survey
	Shoshone Estates (NV0005028)	Provided input on POU customer entry agreements
	Buckboard General Store (NV0000389)	Assisted with the preparation of a ERP/O&M manual/CCCP for the system
	Lovelock Meadows Water District (NV0000161)	Provided direction with a 2-inch commercial service line installation complete with backflow prevention valve & meter
	Montello Water System (NV0000169)	Assisted with more asset GPSing & enhanced layers with linked photos
	West Wendover (NV0000246)	Updates to water maps & enhanced GIS layers with linked photos
	Walker Lake GID (NV0000268)	Assisted with backflow preventer & issues with constant pressure pump for Zone 3
52	Florida Canyon Mining Inc (NV0000884)	Reviewed proper installation of backflow preventer on boiler & provided information on bacteriological sampling procedures
53	Kings River Elementary - Humboldt (NV0002198)	Assisting with necessary compliance documents and procedures for this new 'found' system
	Wildes Manor (NV000058)	Assisted with: revisions to the TCR SSP due to loss of sample site, free chlorine residual sampling, and bac-t testing
	Laferme Restaurant (NV0002053)	Assisted with TCRP
	Steamboat Springs (NV0000282)	Assisted with valve exercising plan
54	Oasis Springs (NV0000921)	Assisted with questions on water conservation plan
	Canyon GID (NV0005056)	Assisted with recalculations for the hypochlorinators
	Goldfield Town Water (NV0000072)	Assisted with updates to the drinking water system maps
	Silver Springs Mutual Water Co (NV0000223)	Follow-up on construction progress of new storage tank and plans to restart the rehabilitated Deodar Well
	Weed Heights (NV0000242)	Follow-up on WTP repairs and assisted with sampling problems
	Yerington (NV0000255)	Assisted with processing of data & images for Yerington's GIS system
	Town of Minden (NV0000168)	Presented information on iron bacteria to Board
55	Riverside Resort (NV0001042)	Training: Interpreting lab results (1 person, 1 system, 3/4 hr)
	Silver Knolls HOA (NV0004021)	Training: Board Training (5 people, 1 system, 2 hrs)
	Silver Knolls HOA (NV0004021)	Training: Board Training (4 people, 1 system, 2.5 hrs)
	Silver Knolls HOA (NV0004021)	Training: Board Training (1 person, 1 system, 2 hrs)
56	Sierra Estates GID (NV0000030)	Training: Meter Issues; Uranium Mitigation (1 person, 1 system, 3/4 hr)
	Kings River Elementary - Humboldt (NV0002198)	Assisted with O&M, ERP, CCCP, & TCR SSP
	Steamboat Springs (NV0000282)	Collecting, reviewing & analyzing customer usage data/patterns
	Town of Minden (NV0000168)	Assisted with iron bacteria treatment processes & information
	Verdi Meadows Utility Company (NV0000196)	Assisted with O&M, ERP & CCCP, & TCR SSP
	Canyon GID (NV0005056)	Training: Sampling (1 person, 1 system, 2 hours)
	Wells Municipal Water Dept (NV0000245)	Training: Well 6 water quality sampling (1 person, 1 system, 1 hour)
	Hawthorne Utilities (NV0000073)	Training: Free chlorine residuals in system (1 person, 1 system, 2 hours)
57	Kershaw Ryan State Park (NV0002121)	Training: Issues with continuing bacteriological issues (1 person, 1 system, 1 hour)
	Wells Municipal Water Dept (NV0000245)	Assisted with review of engineering proposals for design of fulltime disinfection of system wells
	Rye Patch Travel Center (NV0002222)	Training: Water quality sampling for chemical & bacteriological requirements (1 person, 1 system, 1 hour)
	Silver Knolls HOA (NV0004021)	Training: Board Training on budgeting (5 people, 1 system, 2 hrs)
	Wells Municipal Water Dept (NV0000245)	Assisted with hypochlorite pump sizing & review of removal of reverse ratchet on motor at Well 6
58	City of Fallon (NV0000045)	Training: D2 Operator Certification (8 people, 3 system, 4 hours)
	Gerlach GID (NV0000071)	Provided information on rate modification public notice requirements

Technical Assistance provided by Nevada Rural Water Association (Components A & B)

The following list identifies the initiation of technical assistance. Completion of assistance may take longer than one quarter.

	Water System Name	Description of Assistance
	Oct-Dec 2014	
	Wildes Manor (NV0000058)	Training: D1 Operator Certification (1 person, 1 system, 2 hours)
59	Roark Estates Water Association (NV0000319)	Assisted in review of the preliminary engineering report for arsenic mitigation
	Imlay Water System (NV0000226)	Assisted with issues with residential water meters
	Lovelock Meadows Water District (NV0000161)	Training: D3 Operator Certification (1 person, 1 system, 1 hour)
	Rye Patch Travel Center (NV0002222)	Training: Water quality sampling for chemical & bacteriological requirements (1 person, 1 system, 1 hour)
	Wells Municipal Water Dept (NV0000245)	Training: Disinfection & surging Well 6 (1 person, 1 system, 8 hour)
	Roark Estates Water Association (NV0000319)	Provided information on POU agreement form
60	Ely Municipal Water Department (NV0000038)	Discussions with staff & BSDW on implementation of CCCP
	Lovelock Meadows Water District (NV0000161)	Provided instruction on LMI hypochlorinator calculations for pump output
	Canyon GID (NV0005056)	Provided instruction on end of year reports
	Silver Springs Mutual Water Co (NV0000223)	Provided instruction on storage tank paint curing & VOC/bacteriological sampling
61	Stagecoach GID (NV0000224)	Provided instruction with seal replacement on booster pump motor
	Silver Knolls HOA (NV0004021)	Reviewed financial statements to assist in budget training
	Jan-Mar 2015	
62	Lone Mountain Station (NV0004096)	Assisted with O&M, ERP, & CCCP
	Rye Patch Travel Center (NV0002222)	Training: Water quality sampling for chemical & bacteriological requirements (1 person, 1 system, 1 hour)
	Silver Knolls HOA (NV0004021)	Assisted with O&M & TCR SSP
	Silver Springs Mutual Water Co (NV0000223)	Assisted with 2015 CCR
	Tolas Waterworks Coop (NV0000055)	Reviewed updates to O&M manual after treatment plant modifications
	Silver Springs Mutual Water Co (NV0000223)	Assisted with ERP & CCCP (including backflow test forms & notification letters)
	Dutchman Acres (NV0000809)	Conducted SRF capacity survey
	Dutchman Acres (NV0000809)	Assisted in the creation of a wellhead protection plan
	Lovelock Meadows Water District (NV0000161)	Conducted SRF capacity survey
63	Moapa Valley Water District (NV0000160)	Assisted with updates to GIS system and information database
	Riverside Resort (NV0001042)	Assisted with well disinfection protocol
	Roark Estates Water Association (NV0000319)	Assisted with Board & public workshop on arsenic mitigation
	Tuscarora Water System (NV0000189)	Research & location of old mining tunnels that might pose a risk to public health & water system infrastructure - adding to the systemwide GIS map
	Virgin Valley Water District (NV0000167)	Assisted operator with entering new asset points into GIS system
	Walker Lake GID (NV0000268)	Assisted with problems with Zone 3 pump controller
	Ely Municipal Water Department (NV0000038)	Training: Cross-connection control program management (2 people, 1 system, 6 hrs)
	Ely Municipal Water Department (NV0000038)	Assisted with cross-connection inspections & reporting
	Wells Municipal Water Dept (NV0000245)	Assisted with course of action & training on disinfection & water quality testing of Well 6
	Comstock Mining (NV0000413)	Assisted with water hauling permit & system sampling
	Gerlach GID (NV0000071)	Assisted with review of budget, water rates, & projected water loss revenue
	Lovelock Meadows Water District (NV0000161)	Conducted tours/training for the Lovelock Meadows operators at the Fernley & Silver Springs treatment plan
	Schurz Elementary School (NV0000897)	Provided direction for distribution/treatment study for operator's exams
	Silver Knolls HOA (NV0004021)	Assisted with budget & water rates training
	Tonopah Public Utilities (NV0000237)	Training: D2 Operator Certification (2 people, 1 system, 8 hours)

Technical Assistance provided by Nevada Rural Water Association (Components A & B)

The following list identifies the initiation of technical assistance. Completion of assistance may take longer than one quarter.

	Water System Name	Description of Assistance
	Jan-Mar 2015	
	Tonopah Public Utilities (NV0000237)	Training: D2 Operator Certification (2 people, 1 system, 8 hours)
64	NDOT Valmy Roadside Park (NV0002102)	Training: Shock chlorination & residual testing (9 people, 9 systems, 4 hours)
	Wildes Manor (NV0000058)	Assisted operator with system electrical questions
65	Lander Co Water & Sewer Dist 2 (NV0000006)	Attended board meeting to present information about GIS mapping of the water system
	Steamboat Springs (NV0000282)	Reviewed potential updates to O&M, ERP, CCCP, & TCR SSP
	Indian Hills GID (NV0000355)	Training: D1/D2/T1 Operator Certification (4 people, 2 systems, 8 hours)
	Indian Hills GID (NV0000355)	Training: D2 Operator Certification (3 people, 2 systems, 8 hours)
	Yerington (NV0000255)	Training: D2 Operator Certification (1 person, 1 system, 8 hours)
	Fernley Public Works (NV0000062)	Training: D3/T3/T4 Operator Certification (5 people, 1 system, 8 hours)
	Fernley Public Works (NV0000062)	Training: D3/T3/T4 Operator Certification (5 people, 1 system, 8 hours)
	Schurz Elementary School (NV0000897)	Training: D1/T1 Operator Certification (2 people, 1 system, 8 hours)
	Schurz Elementary School (NV0000897)	Training: At Ferney WTP for treatment exam (2 people, 1 system, 8 hours)
66	Truckee Meadows Water Authority (NV0000190)	Training: D1/D2 Operator Certification (11 people, 1 system, 8 hours)
	Truckee Meadows Water Authority (NV0000190)	Training: D3/D4 Operator Certification (14 people, 1 system, 8 hours)
	Walker Lake GID (NV0000268)	Provided information on water rights questions & assisted with ERP update
	Walker Lake GID (NV0000268)	Reviewed issues with existing Mallet Well & possibility of new production well
	Canyon GID (NV0005056)	Assembled system data & created an ArcGIS online account & webmap; trained personnel in accessing information
67	McGill Water & Sewer District (NV0000163)	Assisted with the digitizing of the water distribution system for use with ArcGIS online
	Moapa Valley Water District (NV0000160)	Assisted system with a restoration of GIS maps after the installation of a new server
	Verdi Meadows Utility Company (NV0000196)	Installed new maps to system's computer & instructed operator in the use of the ArcGIS online system
	Yerington (NV0000255)	Assisted with data layer creation for ArcGIS online account
	Multiple - NvRWA Conference	Training: Asset Management (11 people, 8 systems, 1 hour)
	Multiple - NvRWA Conference	Training: Valve Exercising (35 people, 23 systems, 1.75 hours)
	Multiple - NvRWA Conference	Training: D3/D4 Operator Certification (24 people, 16 systems, 3 hours)
	Multiple - NvRWA Conference	Training: D1/D2 Operator Certification (48 people, 28 systems, 3 hours)
	Multiple - NvRWA Conference	Training: D1/D2 Operator Certification (4 people, 1 system, 2 hours)
	Multiple - NvRWA Conference	Training: Mapping Guidelines (15 people, 10 systems, 1 hour)
	Multiple - NvRWA Conference	Training: ArcGIS Online (18 people, 14 systems, 1 hour)
	Gerlach GID (NV0000071)	Training: Policies & Procedures; Open Meeting Law; Agenda Structure (1 person, 1 system, 4 hours)
	Gerlach GID (NV0000071)	Training: Open Meeting Law (2 people, 1 system, 1 hour)
	Gerlach GID (NV0000071)	Training: Policies & Procedures (4 people, 1 system, 1.5 hours)
68	Kennametal Inc (NV0002024)	Assisted with sanitary survey issues regarding cross-connection control
69	Old River Water Company (NV0000223)	Assisted with issues of non-compliance with the arsenic rule
	Silver Springs Mutual Water Co (NV0000223)	Conducted SRF capacity survey
	Apr-Jun 2015	
	Indian Springs Water Co (NV0000082)	Conducted SRF capacity survey
	Kings River Elementary - Humboldt (NV0002198)	Assisted with corrective action plan response to santitary survey
	Roark Estates Water Association (NV0000319)	Conducted SRF capacity survey
70	Spirit Mountain Utility (NV0000221)	Conducted SRF capacity survey
	Dutchman Acres (NV0000809)	Set up ArcGIS online account in preparation of onsite training

Technical Assistance provided by Nevada Rural Water Association (Components A & B)

The following list identifies the initiation of technical assistance. Completion of assistance may take longer than one quarter.

	Water System Name	Description of Assistance
	Apr-Jun 2015	
	Lander Co Water & Sewer Dist 2 (NV0000006)	Assisted system with mapping of water system assets
	Spring Creek Utilities (NV0000036)	Assisted with organizing existing system GIS data, updating their version of ArcMap & preparing training materials
	Tuscarora Water System (NV0000189)	Assisted system with mapping of water system assets & creating new map layers from georeferenced pdf documents
71	Gardnerville Ranchos GID (NV0000066)	Assisted in locating original water conservation plan so the system could make updates & submit to DWR
	Gerlach GID (NV0000071)	Assisted system personnel with certified payrolls during construction
	Kennametal Inc (NV0002024)	Assisted system with cross-connection control survey of facility
72	McDermitt GID (NV0000162)	Reviewed & provided comments on new pumphouse plans
	Roark Estates Water Association (NV0000319)	Provided input to system personnel on compliance response to BSDW
	Silver Springs Mutual Water Co (NV0000223)	Assisted with valve exercising plan
	Lahontan Dam State Park (NV0002028)	Assisted with installation of ArcMap & organized recently collected data
73	Stagecoach GID (NV0000224)	Demonstrated ArcGIS Online
74	Ace Apartments (NV0000702)	Assisted with TCR SSP
	Alamo Sewer & Water GID (NV0000005)	Conducted SRF capacity survey; assisted with understanding of ETT score
	Beatty Water & Sanitation Dist (NV0000009)	Conducted SRF capacity survey
75	Berlin Ichthyosaur State Park (NV0002151)	Provided leak detection equipment & assisted with finding water main leak
	Canyon GID (NV0005056)	Assisted with CCR explanation of high arsenic results
	Comstock Mining (NV0000413)	Training: D1 Operator Certification (9 people, 5 systems, 4 hours)
76	Dutch Wife Motel (NV0000721)	Assisted with TCR SSP
	Gerlach GID (NV0000071)	Conducted SRF capacity survey
	Gerlach GID (NV0000071)	Training: Open Meeting Law (1 person, 1 system, 3 hours)
	Gerlach GID (NV0000071)	Reviewed GID's by-laws
77	Red Rock Canyon Visitors Center (NV0005011)	Training: D1/T1 Operator Certification (6 people, 3 systems, 6 hours)
	Roark Estates Water Association (NV0000319)	Assisted with SRF loan application
	Silver Springs Mutual Water Co (NV0000223)	Assisted with hydrant repair
78	Silver Spur Motel (NV0000798)	Assisted with TCR SSP
	Stagecoach GID (NV0000224)	Assisted with additional data for CCR
	Tolas Waterworks Coop (NV0000055)	Assisted with CCR & O&M manual
	Weed Heights (NV0000242)	Assisted with O&M manual for water treatment plant
79	Whiskey Petes (NV0001073)	Assisted with tank chlorination calculations
80	Westerner Motel (NV0000781)	Assisted with TCR SSP
	Winnemucca Farms (NV0002098)	Training: D1 Operator Certification (2 people, 1 system, 4 hours)

General Training provided by Nevada Rural Water Association (Component C)

Course Title	Date	Contact Hours	Number of Participants	Number of Systems	Locations
Updates on Ductile Iron Pipe	*7/18/2014*	*3.00*	*31*	*15*	*Videoconference to multiple locations*
Fire Hydrants: History, Operation, Maintenance & Security	*8/15/2014*	*3.00*	*29*	*15*	*Videoconference to multiple locations*
How to Avoid Becoming Uninsurable	*9/12/2014*	*3.00*	*14*	*12*	*Videoconference to multiple locations*
Applied Methods for Well Rehab, System Cleaning & Leak Detection	*10/17/2014*	*3.00*	*73*	*45*	*Videoconference to multiple locations*
Regulatory Matters - Revised Total Coliform Rule, Lead Free Re-defined & Other Topics	*11/14/2014*	*3.00*	*89*	*50*	*Videoconference to multiple locations*
Tapping Sleeves, Repair Couplings, Restraints, Fittings & Product Installation Techniques	*12/12/2014*	*3.00*	*45*	*29*	*Videoconference to multiple locations*
Gate Valves & Fire Hydrants - Applications, Operations & Maintenance	*1/16/2015*	*3.00*	*34*	*17*	*Videoconference to multiple locations*
Watersheds, Groundwater & Surface Water	*2/20/2015*	*3.00*	*56*	*33*	*Videoconference to multiple locations*
Backflow Specialist Refresher Training	*4/17/2015*	*3.00*	*34*	*20*	*Videoconference to multiple locations*
Water Rights & Water Quality	*5/12/2015*	*3.00*	*40*	*23*	*Videoconference to multiple locations*
Small System Compliance: Drinking Water Monitoring & Reporting	*6/17/2015*	*3.00*	*48*	*31*	*Videoconference to multiple locations*

What can the Office of Financial Assistance do for you?

The Office provides loans for infrastructure construction to publicly-owned and privately -owned systems in Nevada.

Financing is available at below market rates.

Disadvantaged communities defined by administrative codes could qualify for principal forgiveness loans.

Systems may be eligible to refinance existing loans that were issued for qualified projects.

Searchlight new drinking water source

Mountain City pond rehabilitation

What cannot be funded by the Office?

- Construct or rehabilitate a dam
- Purchase water rights
- Construct or rehabilitate a reservoir except finished water reservoirs or those that are part of a treatment process
- Monitoring costs and laboratory fees
- Operating and Maintenance costs
- Projects mainly for fire protection
- Projects solely for future growth (DW only)
- Refinancing loans for private systems
- Projects for systems that fail to meet financial, managerial, and technical capacity.

Want more information?

Drinking Water Website:
http://ndep.nv.gov/bffwp/dwsrf1.htm

Clean Water Website:
http://ndep.nv.gov/bffwp/srlf01.htm

Program Manager:
Daralyn Dobson
775.687.9489
ddobson@ndep.nv.gov

Office of Financial Assistance for Drinking Water and Clean Water Project Funding

Do you own or operate a public or private water system that needs funding to meet EPA standards, rehabilitate an aging system, or improve an existing system for efficiency and environmental changes?

For information:
775.687.9489

ATTACHMENT 2 – SFY 2015 DWSRF/CWSRF Program Flyer

Minden Gardnerville Sanitation District wastewater energy co-generation enhancement

Las Vegas finished water reservoir rehabilitation

What is the benefit of obtaining funding through the Office?

The following table illustrates the potential cost savings of obtaining a loan with the Office verses traditional financing. The Loan assumes a public entity taking a 20 year loan with a market rate of 4%.

Size of Loan	Interest Savings
$2,000,000	$175,034
$10,000,000	$608,759
$50,000,000	$3,043,795

The Program currently has unallocated funds available for new loans totaling:

Drinking Water: $ 20,000.000

Clean Water: $ 50,000,000

As of December 1, 2014.

What can be funded with Drinking Water funds?

- Safe Drinking Water Act (SDWA) exceedances and prevention of future SDWA exceedances
- Well rehabilitation and drilling
- Rehabilitation of failing systems
- Consolidation and interties to other systems
- Storage, treatment, transmission, distribution, and SCADA
- Preliminary Engineering Reports, planning and design
- Security
- Energy efficiency upgrades
- Climate change remediation

This list is not all-inclusive

To date, Nevada has obligated $180,850,869 in loans, benefitting 84 projects in 52 separate jurisdictions across Nevada. Contract amounts have ranged from $20,000 to $21.9 million. No minimum or maximum loan amount is established to obtain funding.

What can be funded with Clean Water funds?

- Clean Water Act (CWA) exceedances and prevention of future CWA exceedances
- Rehabilitation of failing systems
- Septic to sewer conversion
- Collection, interceptors, treatment, pumping stations, and SCADA.
- Preliminary Engineering Reports, planning and design.
- Energy efficiency upgrades
- Landfill foreclosure, stream bank restoration, and wetland flood prevention, and other nonpoint source pollution mitigation.

This list is not all-inclusive

To date, Nevada has obligated $439,362,757 in loans, benefitting 75 projects in 36 separate jurisdictions across Nevada. Contract amounts have ranged from $43,005 to $46.5 million. No minimum or maximum loan amount is established to obtain funding.

ATTACHMENT 3 – NDEP Bureau of Safe Drinking Water
Arsenic Rule Compliance Status List

August 4, 2015

	COUNTY	PWS ID#	PUBLIC WATER SYSTEM NAME	ARSENIC (ppb)	POP	STATUS
Systems Working to Achieve Compliance Under an NDEP Enforcement Approach						
1	HU	NV0000162	MC DERMITT WATER SYSTEM	19	200	AO, new source pending
2	CH	NV0000055	TOLAS WATERWORKS	35	110	AO, Plant Modified
3	CH	NV0000303	OLD RIVER WATER COMPANY	32	300	AO, installing POU
4	CL	NV0000149	DESERT PARADISE MOBILE HOME PARK	16	70	AOC, consolidation with NLV??
5	WA	NV0004021	SILVER KNOLLS MUTUAL WATER COMPANY	13	120	AO, treatment plant online
Systems Working to Achieve Compliance Under Other NDEP Approaches						
1	CH	NV0000058	WILDES MANOR	20	70	Will likely employ POU
3	CL	NV0000319	ROARK ESTATES WATER ASSOC.	18	62	Funding for POU granted
4	EL	NV0000928	LAMOILLE VALLEY PLAZA	24	25	Installing POU
6	NY	NV0005028	SHOSHONE ESTATES WATER COMPANY	30	240	Will likely employ POU